

REMARKS/ARGUMENTS

The rejections presented in the Office Action dated February 23, 2006 (hereinafter Office Action) have been considered. Reconsideration of the pending claims and allowance of the application in view of the present response is respectfully requested.

With respect to the objection to the title, Applicant has amended the title to be more descriptive. The changes to the title are believed to overcome the objection; therefore, Applicant requests that the objection to the Specification be removed.

Regarding the objection set forth in paragraph 5(a), Applicant acknowledges the Examiner's request that the line spacing of the claims be increased and has provided a replacement set of claims, including amendments, at pages 3-6 of this paper having one-and-a-half spaced lines. This replacement set of claims is believed to overcome the Examiner's objection; therefore, Applicant requests that the objection be removed.

With respect to the wording objections presented in paragraphs 5(b) and 5(c), Applicant has amended Claim 1 to insert the word "the" at line 2 and remove the word "the" at line 4 in accordance with the Examiner's suggestions. These changes more clearly set forth antecedent basis and do not affect the scope of the claim. They were not made for any reasons related to patentability. Applicant accordingly requests that these objections be removed.

With respect to the objection presented in paragraph 5(d), Applicant has inserted the corresponding wording for the acronym "ACS" in independent Claims 1 and 10. In view of these changes, Applicant submits that the objection has been overcome and requests that the objection be removed.

With respect to the wording objections presented in paragraphs 5(e) and 5(f), Applicant has amended Claims 2-9 and Claims 11-18 to replace the word "A" with "The" in accordance with the Examiner's suggestions. These changes are believed to overcome the Examiner's objections; therefore, Applicant requests that the objections be removed.

With respect to the objection to Claim 7 set forth in paragraph 5(g), Applicant respectfully traverses. The Examiner asserts that because the claim language provides an option, the possibility of connecting the output of an ACS bank back to the input of the ACS bank, the claim is not further limited. In contrast, the claim allows that the output of an ACS bank be connectable back to the input of the bank thereby further limiting the claimed invention. These limitations are described in the instant Specification, for example, at paragraph [0046] in connection with Fig. 4C. Applicant accordingly requests that the objection be removed.

Regarding the rejection of Claim 1 set forth in paragraph 6(a), Applicant respectfully traverses. The Examiner asserts that the term “to be used” is indefinite without presenting any rationale for the rejection in violation of 35 U.S.C. §132. Applicant also fails to recognize a basis for the rejection. Claim 1 includes limitations directed to connections between outputs of ACS units and inputs of ACS units for using metrics obtained in one stage of a trellis in calculating consecutive metrics in the next stage of the trellis. The next stage includes ACS units for calculating the consecutive metrics. Applicant requests that the rejection be withdrawn. If the rejection is maintained, Applicant requests further clarification and the opportunity to respond.

Regarding the rejection of Claim 2 set forth in paragraph 6(b), Applicant respectfully traverses. The Examiner asserts that the term “read/write” is indefinite because it is unclear what is meant by the term. The term “read/write” when used in connection with computer memory is commonly understood to mean that data may be stored (write) or accessed (read). Moreover, the United States Patent Office recognizes this term as it is found in the claims of over 6,500 issued U.S. patents. Applicant submits that the term “read/write” is not indefinite and requests that the rejection be withdrawn.

Regarding the rejection of Claim 3 set forth in paragraph 6(c), Applicant respectfully traverses. The rejection is based upon the use of the term “read/write”; however, the term “read/write” is not found in Claim 3. Applicant fails to recognize the basis for the rejection and requests that the rejection be withdrawn. If the rejection is maintained, Applicant requests further clarification and the opportunity to respond.

Regarding the rejection of Claim 3 set forth in paragraph 6(d), Applicant respectfully traverses. The Examiner asserts that the term “from/to” is indefinite because it is unclear what is meant by the term. However, the Examiner appears to understand that the branches of a trellis may lead to or from a state. The United States Patent Office recognizes the use of this term as it is found in the claims of over 500 issued U.S. patents. In view of this evidence, Applicant submits that the term “from/to” is not indefinite and requests that the rejection be withdrawn.

Regarding the rejections of Claims 3 and 4 set forth in two paragraphs labeled 6(e), Applicant respectfully traverses each of the rejections. The rejections are based upon the use of the term “from/to”; however, the term “from/to” is not found in Claim 4, and the only occurrence of the term in Claim 3 was addressed above in connection with the rejection set forth in paragraph 6(d). Applicant fails to recognize the basis for the rejections and requests that the rejections be withdrawn. If the rejections are maintained, Applicant requests further clarification and the opportunity to respond.

Claims 1-3, 10-11 and 17-18 stand rejected under U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,690,750 to Hocevar *et al.* (hereinafter “Hocevar”). Applicant respectfully traverses the rejection because the Examiner fails to present any evidence of correspondence between Hocevar and the claimed invention, and Hocevar fails to teach or suggest each of the claimed limitations. The Examiner acknowledges that Hocevar fails to teach at least, that the calculated metrics of a previous stage of a trellis obtained from the outputs of ACS units are directly connected to inputs of ACS units to be used in the calculation of the next stage of the trellis, as claimed. The Examiner has not presented any evidence or asserted any sort of modification to the teachings of Hocevar that would allegedly correspond to the claimed invention. Instead the Examiner merely asserts that “basically the system of Ho[s]evar is performing the same method as the applicants’ invention for calculating metrics of the trellis.” This conclusory statement fails to overcome the above-identified acknowledgement that Hocevar does not in fact correspond to the claimed invention.

The Examiner further fails to assert any sort of modification of the teachings of Hocevar. Instead, the Examiner asserts that a skilled artisan would “connect the outputs of the ACS units to the inputs of the ACS units directly as taught by Ho[s]evan et al. to calculate for the next stages.” The above acknowledgement contradicts such an assertion by acknowledging that Hocevar does not teach a direct connection of the outputs and inputs of ACS units. This assertion is illogical and fails to provide any evidence of the requisite correspondence to the claimed invention.

Moreover, consistent with the Examiner’s acknowledgement, Hocevar does not correspond to the claimed invention. For example, Hocevar’s cascaded ACS units fail to correspond to the claimed invention, at least in that they include elements between the ACS units that prevent the ACS units from being directly connected. For example, Figure 7 in Hocevar shows delay registers (or shift registers) 160a in one of the inputs followed by a cross-switch 162 and delay registers 160b in the opposite output. Such reordering hardware, sometimes called Shift-Exchange-Unit (SEU), is required by Hocevar and prevents ACS unit outputs from being directly connected to ACS unit inputs. Without any further assertion or presentation of a modification to Hocevar, the teachings of Hocevar fail to correspond to the claimed invention. Without a presentation of correspondence to each of the claimed limitations, the §103(a) rejection is improper. Applicant accordingly requests that it be withdrawn.

Further, if the Examiner is proposing that Hocevar’s cascaded ACS units be modified to directly connect the inputs and outputs of the ACS units, such a modification would be improper as it would render the teachings of Hocevar inoperable. A modification that destroys the operability of a reference’s teachings is improper. *See, e.g.,* MPEP §2143.01(VI). Removing the SEU’s taught by Hocevar would eliminate the system’s ability to reorder outputs, thereby destroying the calculations. Thus a modification that would remove essential calculating elements from Hocevar could not provide the requisite motivation for a modification. Without a presentation of proper evidence of motivation, the §103(a) rejection is improper and Applicant requests that it be withdrawn.

Dependent Claims 4-9 and 12-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hocevar *et al.* in view of U.S. Patent No. 5,408,502 to How (hereinafter “How”). As discussed above, Hocevar fails to correspond to the claimed invention, and the Examiner’s further reliance on How does not overcome the above discussed deficiencies. Without a presentation of correspondence to each of the claimed limitations, the §103(a) rejection is improper and should not be maintained. Applicant accordingly requests that the rejection be withdrawn.

The rejection of each of dependent Claims 2-9 and 11-18 is based on the above-discussed, deficient Hocevar reference. While Applicant does not acquiesce to any particular rejections to these dependent claims, including any assertions concerning descriptive material, obvious design choice and/or what may be otherwise well-known in the art, these rejections are moot in view of the remarks made in connection with independent Claims 1 and 10. These dependent claims include all of the limitations of their respective base claims and any intervening claims, and recite additional features which further distinguish these claims from the cited references. “If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious.” MPEP §2143.03; *citing In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, dependent Claims 2-9 and 11-18 are also allowable over the teachings of Hocevar.

Applicant has also added new Claim 19, which includes limitations discussed above in connection with Claim 1 and therefore does not introduce new matter. Support for new Claim 19 may be found, for example, in the Specification at paragraph [0011] and is believed to be allowable over the cited references for the reasons discussed above.

Authorization is given to charge Deposit Account No. 50-3581 (KOLS.048PA) any necessary fees for this filing. If the Examiner believes it necessary or helpful, the undersigned attorney of record invites the Examiner to contact her at the number below to discuss any issues related to this case.

Respectfully submitted,

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